

**TCAP Achievement, Grade 5, Science**  
**Criterion Referenced Test (CRT) Reporting Categories with State Performance Indicators (SPI)**

<b>Structure and Function of Organisms</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.1.1	Identify <i>basic</i> structures of plant and animal cells.
5.1.2	Compare and contrast <i>basic</i> structures and functions of plant and animal cells.
5.1.3	Distinguish between single cell and multicellular organisms.
5.3.1	Match plant structures with their function.
5.3.2	Identify photosynthesis as the food manufacturing process in plants.
5.3.3	Identify what plants need (i.e., water, sunlight, carbon dioxide) to manufacture food.
<b>Ecology</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.2.1	Identify environmental changes caused by living things.
5.2.2	Determine various types of plant and animal relationships within an ecosystem.
5.2.3	Predict the effects of human actions and/or natural disasters on the environment.
5.5.1	Compare how organisms adapt to different environments.
5.5.2	Match the form with the function of structures in living things.
5.5.3	Identify adaptations that enhance the survival of organisms in an environment.
5.5.4	Determine which organisms are likely to survive in a particular environment.
<b>Life Cycles and Biological Change</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.4.1	Compare the traits of parents and their offspring.
5.4.2	Infer the importance of reproduction in the survival of a species.
5.4.3	Recognize the difference between complete and incomplete metamorphosis.
5.6.1	Compare the causes that led to the extinction of various organisms.
5.6.2	Analyze how fossils provide information about the past.
5.6.3	Compare the relative age of fossils in rock layers.
<b>Space, Weather, and Climate</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.7.1	Identify and arrange the phases of the moon in the correct sequence.
5.7.2	Distinguish among the planets according to specific characteristics.
5.7.3	Identify the force that pulls objects toward the Earth.
5.7.4	Differentiate between the Earth's rotation and its revolution.
5.7.5	Recognize that the appearance of an object in the sky is affected by its size, motion, and distance from the Earth.
5.8.1	Distinguish between weather and climate.
5.8.2	Identify the basic features of the water cycle.
5.8.3	Predict weather conditions based on an analysis of atmospheric data.
5.8.4	Identify how various geographic features affect weather and climate.
<b>Earth's Features and Resources</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.9.1	Identify forces that cause geological change.
5.9.2	Recognize that the age of Earth materials can be determined by their position in rock layers.
5.9.3	Identify characteristics of the Earth's layers.
5.10.1	Select a diagram that illustrates the most appropriate use of an earth material.
5.10.2	Select the soil characteristics that best support plant growth.
5.10.3	Recognize the impact of society's use of nonrenewable resources over time.
<b>Motion and Forces, Forms of Energy</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.11.1	Identify the effect that gravity has on objects found on or near the Earth's surface.
5.11.2	Determine the effect of slope and friction on the speed of an object.
5.11.3	Match simple machines with their uses.
5.14.1	Identify the poles of a magnet.
5.14.2	Recognize how various materials conduct heat.
5.14.3	Identify the description of a magnetic field.
5.14.4	Identify ways that energy is transferred.
5.14.5	Differentiate between potential and kinetic energy.
5.14.6	Distinguish between series and parallel circuits.
5.14.7	Select the illustration that depicts how lenses refract light.

**SPI# -- Grade Level. Content Standard Number. Performance Indicator Number**

**Please refer questions about this list to the Tennessee Department of Education, Evaluation and Assessment. 01/08/04**

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<b>Matter</b>	
<b>SPI#</b>	<b>State Performance Indicator</b>
5.12.1	Select a material according to a description of its physical properties.
5.12.2	Recognize the law of conservation of matter.
5.12.3	Recognize how heat loss or gain is associated with a change in the state of matter.
5.12.4	Determine the appropriate metric unit of measurement for specific properties of matter.
5.13.1	Distinguish between physical and chemical change.
5.13.2	Compare the effect of physical and chemical change on matter.
5.13.3	Identify a substance as an acid (i.e., vinegar or lemon juice) or a base (i.e., soap or baking soda).